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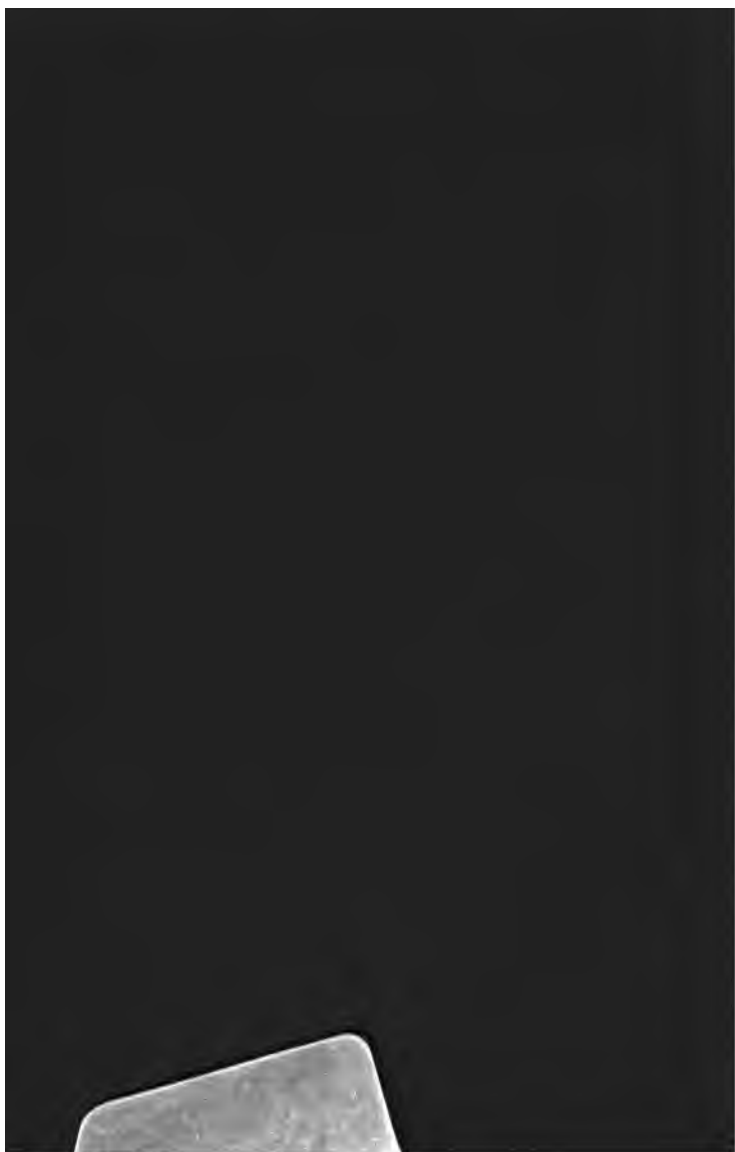
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THE
DOMESTIC MANAGEMENT
OF
CHILDREN

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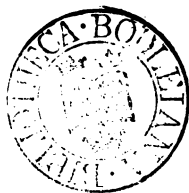
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BY
P. M. BRAIDWOOD, M.D.

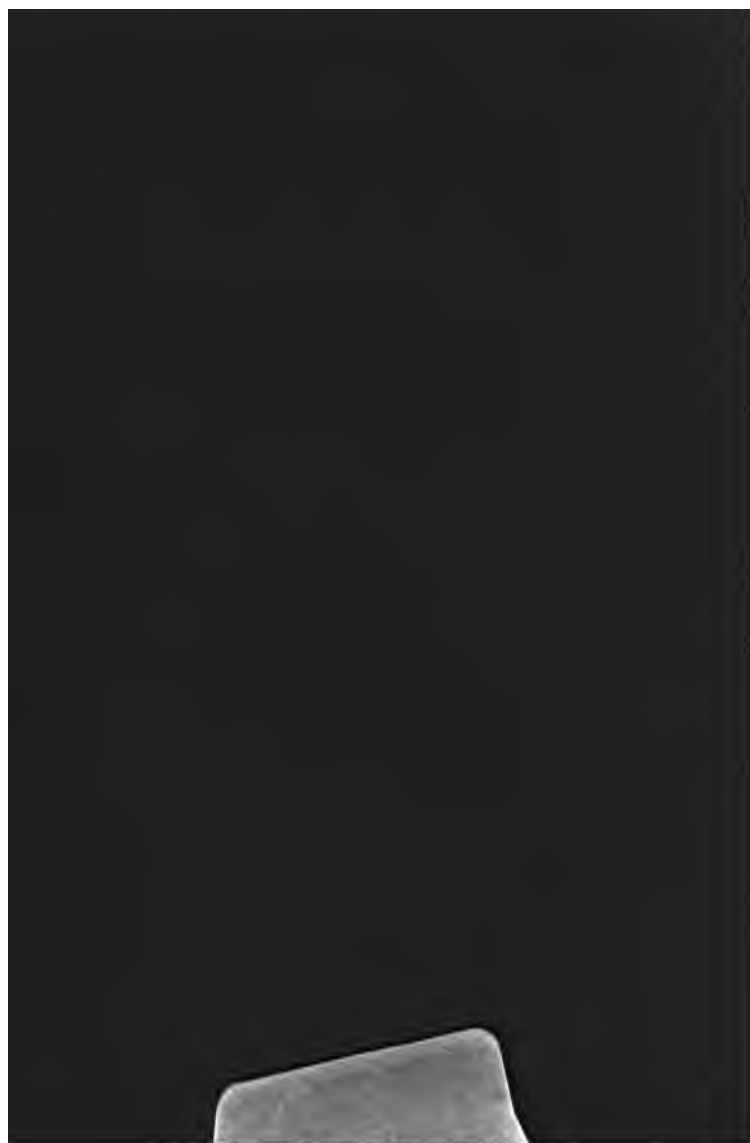
SURGEON TO THE WIRRAL HOSPITAL FOR SICK CHILDREN.



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PREFACE.

MANY excellent works have been published in this and other countries with the aim of guiding mothers in the management of their children during health and sickness. To some of these we are indebted for assistance in the preparation of the following pages,—especially to the late Dr. Andrew Combe's valuable treatise on 'The Management of Infancy,' revised and edited by Sir James Clark; to Professor Fonssagrive's interesting work entitled 'Le Rôle des Mères dans les Maladies des Enfants'; and also to Dr. Chevasse's well-known 'Advice to Mothers.' These and all the treatises already published on this subject appear, however, to suffer from two

THE
DOMESTIC MANAGEMENT
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DOMESTIC MANAGEMENT OF CHILDREN.



CHAPTER I.

ON THE TREATMENT OF AN INFANT IMMEDIATELY AFTER BIRTH.

A NEW-BORN CHILD may be regarded as a mass of animated clay, composed of different tissues, which, by proper exercise, may be developed into a healthy being, or be destroyed gradually or suddenly by very simple means. All the tissues are at this stage of existence so delicate, and possess the power of such rapid growth, that, with care, they can be cultured to almost any extent, or may be stunted or otherwise altered, so as to lose their vitality at once, or remain amongst others of a healthy growth in an isolated con-

dition. The healthy child develops into the healthy man, but a sickly infant can never become a truly healthy adult.

In the following pages I shall discuss—

Firstly : The treatment of the infant immediately after birth.

Secondly : The feeding of children.

Thirdly : Other means for preserving the health of children.

Lastly : Some directions as to the management of children when sick.

At birth the body of the child is more or less covered with a greasy, curd-like substance, particularly about the eyelids, flectures of the joints, and various folds of the skin, where it adheres very closely, and is often difficult of removal. It is important, however, that the skin should be *thoroughly* cleansed from this ; for, if allowed to remain, it dries, hardens, and irritates the surface, sometimes producing severe excoriations. Wash the child, then, in water of from 96° to 98° Fahrenheit, with a piece of flannel or a sponge, and with some soft soap (such as glycerine soap or carbolic acid soap). If portions of this greasy matter cannot be removed, rub the part well with

olive-oil, and at the next bath this remnant will probably be washed off. In washing the child, care must be taken not to hold it in an erect or sitting posture, seeing its bones are soft and cannot bear any weight. Attention must further be paid to wash the face first and afterwards the head, lest any impurities from the rest of the body should get into the eyes, and cause a troublesome inflammation of those organs. While these parts are being washed (always with some form of soft soap), the body should be kept covered with the flannel in which it was originally wrapped. The next important step, after washing the child *carefully* and *thoroughly*, is to dry the whole surface of the skin perfectly. While this is being done the child should be laid on a warmed soft pillow, rather than tumbled about (as is the ordinary way) on the nurse's knees in every conceivable position. The towel used for drying the child should be soft to the touch, and should be warmed before being applied to the skin. However carefully the infant is dried, moisture is liable to collect in the grooves between the folds of skin; it is well, therefore, to sprinkle some soft powder over these parts.

The next point to be attended to is the arrangement of the navel cord—to place it so that in undressing the infant it may not be in the way, and, from being touched, cause pain to the child. The ordinary mode of dressing the navel cord is the following, and by experience it has been proved to be satisfactory:—Take a piece of soft, old linen, and cut a circular hole in its centre; through this the cord is to be drawn, the edges of the piece of linen folded over it, the whole laid upwards on the abdomen, to form an envelope. The surface of the skin at the base of the cord should be well rubbed with oil or cold cream; and this should be done each day after the infant is bathed, and until the navel cord is separated. I always insist on the oiling of this portion of the skin, as I have frequently noticed excoriations around the navel, caused by perspiration or discharge from the cord accumulating beneath its envelope. The cord, if not separated, should be removed not later than on the fifth day. A band of thin flannel, five or six inches broad, and long enough to go twice round the body, is next wrapped round the child's abdomen. In doing this two points must be attended

to; namely, that this band be not applied too tightly, and that it encircle the belly only. I have frequently seen this binder wrapped round so tightly and brought so high on the chest as to interfere with breathing. In fastening this and other portions of the child's dress a needle-and-thread, or the so-called safety-pins, should alone be used, but on no account the ordinary sharp-pointed pins. The clothing of an infant should be sufficiently warm, soft, light, and loose—not calculated to place the slightest restriction upon the movement of the limbs, chest, or abdomen. If the child is exceedingly feeble at birth, or is prematurely born, it often utters a low, plaintive moan or whine, indicative of a want of warmth. Newly-born infants are exceedingly susceptible to cold, and at the same time are unable to maintain sufficient animal heat; so that, if this be not supplied by artificial means, they are lost. They should, therefore, if the weather is cold, be bathed before a fire, and the bathing should be done rapidly, but not hurriedly. They should be clothed in flannel from head to foot, with the face alone exposed, for their little hands require to be covered quite as much as any other part of

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their body. When dressed, the infant should be laid on the bed beside its mother, and kept there as much as possible. It is of the greatest importance that the heat of the child's body should be maintained during sleep, and especially that its feet be kept very warm.

As soon as the infant is dressed, many nurses are in the habit of dosing it with castor-oil or other purgatives. This is unnecessary and is objectionable, because all such medicines irritate the lining membrane of the bowels (which in the infant is an extremely delicate tissue), and annoy the child by causing griping pain. After the child has acquired proper warmth, and breathes naturally, it generally cries from hunger, and I recommend that it should then receive a few teaspoonfuls of sugar-and-water, slightly warmed. It should receive this food during the first day or two after its birth, as it requires no stronger nourishment till its mother can nurse it. The common practice of giving new-born infants farinaceous food is very injurious, as it irritates the bowels.

If the mother intends to nurse her child, the attempt should be made within the first twenty-

four hours after birth ; partly, in order to draw out and form the nipple before any distention of the breast occurs, which would render this difficult, and partly to encourage the flow of milk. It must further be remembered that the milk first formed in the breast possesses aperient qualities, and it is therefore important that the child receive it as soon as it is formed. When the infant is wet-nursed, or artificially fed from its birth, or when the bowels do not act naturally within the first two days after birth, the child should receive a dose of liquid magnesia or of syrup of senna. Care should also be taken that the child empties its bladder within twenty-four hours after birth ; and if not relieved by means of a warm bath, medical advice should be sought for.

Some of the Earliest Ailments of Childhood :
Sore Eyes.—About the second or third day after the child's birth inflammation sometimes attacks the eyes, and may do them considerable harm without exciting the fears of the mother or attracting the attention of the nurse. The child cannot express its sensations ; and as the swelling of the eyelids conceals the progress of the disease,

serious mischief is frequently done before a medical man sees the patient. Hence this affection causes more blindness (particularly among the lower classes) than any other inflammatory disorder of the eye; and a considerable number of children are rendered thus partially or totally blind. The parent and the nurse, when this inflammation first appears, generally regard it as merely 'a cold in the eyes,' which will pass off without requiring special treatment. This affection is at first recognised by the eyelids adhering together a little when the child awakens from sleep. It will be noticed further that the edges of the eyelids are redder than is natural, especially at the corners. The child keeps the eyes involuntarily closed, because it experiences pain on the access of light. The eyes water a great deal, discharging at first a clear, glary fluid, which soon becomes muddy, thick, whitish, or yellowish. If the disease is not treated properly, in a few days the eyelids swell, become red on their outer surface, and a large quantity of discharge comes pouring out, scalding the skin, and annoying the child much.

Treatment.—In the first instance, then, the

eyes should be well washed with milk and tepid water and carefully dried, at least twice daily, so that no matter may collect between the eyelids; and at night the edges of the eyelids should be smeared over with clean lard, cold cream, or spermaceti ointment. When these means are not sufficient, medical advice should be obtained; and the treatment prescribed should be diligently and rigidly followed.

Jaundice.—It frequently happens during the first or second week after birth that the skin becomes very yellow, and the child has all the appearance of having jaundice. This occasions great distress to the mother when she perceives it; but if forewarned of its probable occurrence she may, by giving the child one or two doses of a simple purgative, as syrup of senna or liquid magnesia, at the very commencement of the attack, ward off the malady. The occurrence of jaundice may be foretold by watching the colour of the evacuations; and if the remedy we have mentioned be given when the motions are observed to be either too pale or greenish, it will most probably avert the illness.

Tied Tongue.—The bridle of the tongue some-

times renders it difficult for a child to suck, and if allowed to continue this would in after-years impede speech. This defect is owing to the bridle being unusually short, or to its attachment extending to the tip of the tongue. The operation of snipping through the bridle with a pair of scissors is so simple that no mother should hesitate about getting this done, whenever there is any doubt as to the freedom of the movements of the tongue.

Harelip.—If slight, this deformity will not interfere with the mother's nursing the child, provided her nipples are large and the milk flows freely. If such be not the case, this difficulty may be obviated by using a nipple-shield. The operation for the slighter deformity can be performed at any time after the first month; but when the defect extends also into the palate, no operation should be attempted till the child has cut all its first teeth—that is, till it is two years old.

Hæmorrhage from the Navel.—Bleeding from the navel string sometimes occurs, and should be arrested by again firmly tying the cord. If the bleeding comes on after the cord is separated, the

point of the finger must be placed firmly on the bleeding spot, and kept there until the medical attendant arrives.

Swollen Breasts.—At birth, or two or three days subsequently, the breasts of the infant are sometimes observed to become swollen, hard, and painful, and to contain a few drops of fluid. On no account should this be squeezed out; but, if the breasts are simply enlarged, they should be rubbed daily and very gently with warmed oil; and a little time will suffice to restore them to their proper state. If, however, they are inflamed, painful, hard, red, or unusually large, a warm bread-and-water poultice must be applied every three or four hours, till the redness, hardness, and pain diminish. These means, along with an occasional dose of a purgative, will generally prevent either the formation of matter or any other unpleasant consequence. After the inflammation is removed, the rubbing with warmed oil will serve to complete the cure.

CHAPTER II.

ON THE FEEDING OF CHILDREN.

THE importance of this subject—how to feed children—may be inferred from the following considerations. The infant at birth possesses all the elements for growth and strength; but though its tissues are at this time defined, none of them are fully formed. The future character of these tissues, whether durable, strong, perfect in every respect, or not, depends pre-eminently on the manner in which the infant is fed; on the fact, whether or not the food taken is digested and tends to form healthy tissues, or merely irritates the digestive apparatus and is with difficulty expelled. This subject, though apparently complex, is really not so, when we endeavour to ‘discover a foundation for every rule and injunction in the laws of the human constitution, and consequently

in the will of the Creator,'* and refrain from acting according to mere human] opinion. By observing the examples furnished in the case of the lower animals, and by remembering that any error in feeding a child is quickly indicated by unmistakable symptoms, we are guided to the best nourishment for producing in a child a sound and vigorous bodily frame and an active and well-balanced mind. Much of infantile suffering and most of the wrecked constitutions which constantly cross our path, are merely the results of improper feeding during infancy. Both parents and medical men have paid too little attention to the proper feeding of children; and in thousands of instances children have struggled through illness induced by indiscreet feeding, or have suffered from an unnecessarily severe inflammatory attack, owing to their constitutions (that is, their tissues) not being properly developed, because the food received has not nourished them. Much also may be done at this stage of the infant's existence to counteract, by the proper feeding of the child, the tendency to disease implanted in it by what is

* Dr. Combe, 'On the Management of Infancy.' Preface.

termed 'the law of hereditary predisposition.' 'I do not mean,' says Dr. Combe, 'that the actual disease which afflicted a parent will certainly reappear in the children; but only that the offspring of such parents will be much more liable to its invasion from the ordinary incidents of life than those belonging to a healthier stock, and will require very careful and judicious management to protect them from it.' *

On Nursing.—'The grand aim, therefore, in attempting to improve the treatment of infancy, ought to be, *the discovery and fulfilment of the conditions on which the healthy action of the principal organs depends.*' * It may further be stated, as a fixed law of nature, that a healthy woman should suckle her children. With few exceptions, this rule holds true; and, like other natural laws, it cannot be broken with impunity. The evidence of design is manifest, for hereby is cherished and increased the love of the parent towards her offspring, and herewith is established in the dependent and helpless infant, from the first hours of its existence, those impressions which

* Dr. Combe, 'On the Management of Infancy,' p. 7.

† Ibid., p. 46.

become consummated in affection and confidence. The milk, moreover, which is secreted and poured forth is admirably fitted in its qualities for the rapid growth of the babe's delicate organism. 'It is a model,' says Dr. Prout, 'of what an alimentary substance ought to be—a kind of prototype, as it were, of nutritious materials in general;' and thus it continues to be formed day by day, until the time arrives when, the digestive organs having acquired the power of preparing for themselves, from the various substances which constitute our diet, those compounds necessary for sustenance and growth, milk is no longer required. Nursing contributes greatly, moreover, to preserve and promote the mother's health; for, generally speaking, at no period of her life is she more healthy than when nursing; and many who have previously been delicate become robust and strong by this means.

Experience and reason prove that no nourishment is so well suited to the constitution of the child as its own mother's milk. This consideration has so deeply impressed mothers in later years, and it has been so strenuously and unanimously insisted on by the medical profession,

that, in Great Britain at least, the practices of 'wet-nursing' and of 'feeding with the bottle' are not nearly so prevalent as formerly. There are few women in the present day willing to allow this dearest privilege of a mother to devolve upon a stranger. But whenever, from caprice, the love of pleasure, the desire to avoid the irksomeness and trouble entailed by nursing, or from any cause of a like frivolous nature, a healthy mother breaks through this law of her being, it behoves her to look to the possible consequences to herself of pursuing such a course of conduct.

There are circumstances, undoubtedly, which disqualify the parent for the performance of this duty. Sometimes a delicate state of the constitution will forbid it, though the mother may be free from any actual disease. In such instances, however, an attempt at nursing should be made, if sanctioned by the medical attendant; and if assiduous care be bestowed on the various means which invigorate the general health, it may be that the delicate mother will become strong, and be enabled to nurse with benefit both to herself and her child. Nursing

should, in the first place, always be fairly tried, and never be given up hastily; if it fail, the consequences of the trial, under judicious medical superintendence, will seldom be attended with bad results.

The following conditions, however, disqualify a mother from nursing; and if they cannot be remedied, nursing should not be attempted. 1st. A natural defect in the size and structure of the breasts and nipples, the former being too small to contain the amount of milk required, and the latter too small and sunken to enable the child to lay hold of them or to allow of their being artificially drawn out. 2nd. Excoriations or cracks around the base and on the nipples cause the effort to suckle to be attended with great agony. By washing such nipples well with warm water and milk before and after each nursing, drying them thoroughly and gently, and then applying oil all over their surface, while an indiarubber shield is used during suckling, the agony of nursing may be greatly relieved and gradually overcome; while the wounds will by this means be protected from direct pressure and allowed to heal. Care must be taken that the shield fits

the nipple *exactly*, or the end desired will not be attained. Too small an indiarubber shield would prevent the flow of milk, and irritate the sores; while one too large, by preventing the formation of a complete vacuum, would disable the child from drawing the milk. It is wrong to struggle against the exquisite pain which is caused by nursing with sore nipples; hence, if this plan of treatment fail after a fair trial during a couple of days, the medical attendant should be consulted without delay.

As this pamphlet is not intended to be exhaustive of the subject of the ailments connected with nursing, nor to contain all the suggestions relative to a mother's qualifications or disqualifications for nursing, and the points to which she should attend if she desires to be a good nurse, I shall content myself with simply enumerating the principal constitutional conditions which should deter a mother from *attempting* to nurse her child. These are threefold:—

Firstly,—Those of a consumptive and strumous constitution should not nurse their offspring. In such instances, by employing a wet-nurse, a young healthy woman of about the same age as

the mother ; by allowing the infant a perfectly pure atmosphere to breathe and sufficient exercise ; and by checking, under proper medical supervision, any derangements of digestion whenever they occur, the mother adopts the surest antidote against a constitutional predisposition to disease, the seeds of which, if not previously apparent, are often developed in the infant during nursing ; and at the same time she takes the best means to induce a healthy constitution in her child.

Secondly,—Mothers of a highly susceptible nervous temperament should not nurse their offspring. Those who are easily excited or agitated by ordinary occurrences do more harm than good by attempting to nurse. Such sudden changes of temperament render the supply of milk at one time deficient, and at another so deteriorated in quality that serious disturbance to the infant's health will ensue. In all classes of animals does this principle hold true. ' With such evidence before us, we are warranted in maintaining that the possession, by the parents, of a sound and vigorous bodily constitution, and an active and well-balanced mind, has powerful influence in securing similar advantages to the

offspring, If either parent inherits the feeble delicacy or the mental peculiarities of an unhealthy or eccentric race, the probability is very great that the offspring will be characterised by similar qualities.' 'I do not mean,' observes Dr. Combe, 'that the actual disease which afflicted the parent will certainly re-appear in the children, but only that the offspring of such parents will be much more liable to its invasion from the ordinary incidents of life than those belonging to a healthier stock, and will require very careful and judicious management to protect them from it.' *

Thirdly,—The mother who resolves to nurse her infant only when it suits her convenience ought not to engage in this duty at all.

Under all the foregoing circumstances, the infant must be provided with its support from another source, [and a healthy wet-nurse is the best.

We have already stated that during the first twenty-four hours after birth the child should be fed on sugar-and-water alone. At the end of this time the flow of the mother's milk generally

* Combe, 'On the Management of Infancy,' pp. 6, 7.

commences, and should be encouraged by applying the child to the breast. It is of the utmost importance that the infant should receive its nourishment henceforward upon a definite plan. It is a common but grave error to treat crying as an infallible sign of an empty stomach. This is, indeed, the only means by which an infant can express its distresses or emotions. 'If it is hungry it cries; if it is over-fed it cries; if it suffers from the prick of a pin it cries; if it lies too long in the same position, so as to receive undue pressure on any one part, it cries; if it is exposed to cold, or any part of its dress is too tight, or it is held in an awkward position, or is exposed to too bright a light or too loud a sound, it can indicate its discomfort only by its cries; and yet the one remedy of ignorant nurses for so many different evils is, not to find out and remove the true cause of offence, but to offer the child the breast.'*

During the first month of its existence the child should be nursed every two hours during the day and thrice during the night. By observing this rule the child is trained to digest and to take certain intervals of repose, which are equally

* Combe, *Ibid.*, p. 77.

advantageous to the mother and the infant. By this arrangement the mother's health is preserved, and she is enabled to suckle her infant when she might otherwise fail.

According to the mortality returns of Great Britain, more than half the deaths occur among children under the age of seven, and most of these die before completing their first year. From the reports of all children's hospitals, moreover, we learn that a very large proportion (nearly two-thirds) of the children brought there for treatment suffer from various forms and degrees of digestive derangement, and from diseases ascribable to, or aggravated by, imperfect digestion. If the children do not succumb to such disorders, or if these ailments are not treated properly and in time, the constitution of the child very often becomes irreparably injured.

The digestion of an infant being extremely weak during the first few months after birth, care must be taken not to overload the stomach, either by allowing the child to have too much or by feeding it too often. The former is generally guarded against by Nature herself, and the child returns the extra milk it does not require. As

already stated, while during the first three or four weeks the infant should be nursed at intervals of two or three hours, after this date the child should be fed regularly every three or four hours. It is a common error to allow a child to sleep as long as it likes—so long, in fact, that the child becomes faint and the desire for food passes off, as we know is the case also with the adult. After the first month, too, it is advantageous to the mother's health, and not prejudicial to the child, that a period of six hours elapse between the periods of feeding by night. It is of the *utmost* importance that the mother have calm, undisturbed repose, in order that her health may improve, and that she may gain strength, so as to nurse well. Sleep is as necessary for the restoration and maintenance of strength as nourishment itself; and the want of it will soon diminish and deteriorate the quantity and quality of the milk, and sometimes (without its being suspected of so doing) will drive it away altogether. It is well, therefore, when possible, to have the child, after it is three or four months old, trained to sleep in a separate room from the mother; and with this object

care must be taken to entrust the infant to a thoroughly reliable servant.

This plan of nursing is to be followed during the first eight or nine months of the infant's life, and until the appearance of the first teeth. If the parent be healthy, she will be able to afford adequate nourishment to the child, *without additional assistance from artificial food*. The latter should *on no account* be given (up to this period), unless, from deficiency of milk or some other cause, it be absolutely required. If, however, the maternal supply runs short, the deficiency can be made up by employing another mother to feed the child, or by giving the infant a mixture of cow's milk and water, and *this alone*. A most fertile source of injury and death among children at this age is due to an admixture of foods. Different degrees of digestion and assimilation are required by human milk and by a mixture of cow's milk and water; and these foods should, therefore, not be used together. In rearing the infant on cow's milk with water, the proportion, in the first instance, should be two parts of water and one of milk. By the end of the second month a child will generally be able to digest a

mixture containing equal parts of milk and water, and thereafter the proportion of milk should be gradually increased till the infant can take one part of water to two of milk. When the child is *very* delicate it has difficulty in digesting a mixture of cow's milk and water, whereas it thrives on ass's or goat's milk, or on these milks diluted at first with an equal proportion of water.

It often happens that children fed on such mixtures—either in consequence of some alteration in the food of the cow, which has affected the character of its milk, or because the child is suffering from cold or other slight disorder—cannot digest the mixture of milk and water; and this is accordingly rejected in the form of ‘curds’ or coagulated milk, or is passed in like form through the bowels, producing diarrhoea, and also deranging the liver, as indicated by ‘green-coloured motions.’ In such instances it is best to discontinue altogether giving milk for three or four days, and to substitute barley or rice water, slightly sweetened. These emollient fluids quiet the irritability of the bowels, and the mixture of milk and water can *thereafter* be *gradually* resumed with advantage. In making such fluids for infants the grain should

be well soaked, then carefully boiled for three or four hours and strained, so as to preserve as much as possible of their starchy elements, without any of their tissue substance. When thus fed on barley or rice water, the rule we have laid down above for nursing should be strictly observed, and a smaller quantity should be given at one time. In carrying on this artificial process the feeding-bottle should be used, *not the spoon*; and when wisely managed, children often thrive very well though thus nurtured. ‘Both medical men and mothers,’ says Dr. Combe, ‘used to advise the addition of gruel, arrowroot, or some other farinaceous food, almost from the first month, and the common results were impaired digestion, and a greater liability to convulsions and other diseases of irritation, especially during the time of teething. But now a better acquaintance with the laws of the animal economy, joined with a more implicit reliance on the wisdom and benevolence of the Creator, has taught us that the more closely we adhere to the path which He has marked out for us, the more successful shall we be in rearing the young.’*

* Combe, *Ibid.*, pp. 84, 85.

After the infant has cut his first two teeth, the mother should begin to arrange for weaning him. This, like the other changes to which the child requires to be subjected, should be proceeded with very gradually. Having taught the child to dispense with the mother's milk by night, the next step is to accustom it to be fed artificially twice or thrice, and then oftener, during the day, till, in the course of ten or fourteen days, the mother's milk can be entirely dispensed with. It cannot be too often enjoined that, in giving a child artificial food, the greatest care must be taken in the selection of it, the preparation of it, and in the mode of giving it.

As regards the proper time for *weaning* a child, two considerations require to be duly weighed. If the mother's health continue good, weaning should not be commenced till nature's guide, the appearance of the first two teeth, plainly points to the necessity of stronger food. If, however, before this date the supply of the mother's milk runs short, or the mother's health begins to suffer from nursing, weaning should be resorted to without delay. As regards the child, weaning ought not to take place till about the ninth

month, when the development of the teeth shows that a change of food is proper. Delicate children, however, often do not teethe till several months later; so, also, in certain families there exists the peculiarity of slow teething. In such instances weaning should be delayed, if the child's general health appears to improve; but if the child seems to be growing more feeble, weaning should be gradually commenced, even some time before the teeth appear. It is well if weaning can be conducted during fine weather, when the child can be much in the open air; for this, more than any other means, serves best to allay the nervous irritability which usually accompanies teething.

'It is generally recognised,' says Dr. Farr,* 'that the healthiest children are those weaned at nine months complete. Prolonged nursing hurts both child and mother; in the child, causing a tendency to brain disease, probably through disordered digestion and nutrition; in the mother, causing a strong tendency to deafness and blindness. It is a very singular fact, to which it is desirable that attention were paid, that in those districts of Scotland—viz. the Highland and in-

* Dr. William Farr, 'On the Mortality of Children.'

sular—where the mothers suckle their infants from fourteen to eighteen months, deafness, dumbness, and blindness prevail to a very much larger extent among the people than in districts where nine or ten months is the usual limit to the nursing.' 'At the ninth month,' remarks Dr. West,* 'teeth begin to appear—the first clear evidence of these changes which nature is working in the organism, and the indication that before very long the child will be able entirely to dispense with the elaborately prepared nourishment which it has hitherto received from its mother.' From my own experience, I feel convinced that more than two-thirds of the diseases from which children under one year old suffer are directly or indirectly traceable to the attempted combination of artificial feeding with nursing—to the mother's persevering in nursing, though not suited for it—and, especially, to too long delay in weaning.

We cannot conclude our remarks on the feeding of infants without referring shortly to two kindred subjects—the health of the mother during

* Dr. West, 'On the Diseases of Infancy and Childhood,' p. 531.

nursing, and the selection of a wet-nurse when required.

A mother should be particularly careful of her health while she is nursing. Nourishing and digestible milk can be afforded only by a healthy mother. It is against common sense to expect that if a mother injures her constitution by improper diet, by neglecting to take exercise, and by breathing impure air, she can, nevertheless, provide as wholesome and uncontaminated a fluid for her child as if she were diligently attentive to these points. It is unnecessary here to specify the articles of diet suitable for a nursing mother; suffice it to say, that that form of dietary which the mother has found by previous experience to agree best with her—to be most easily digested, and to afford the greatest amount of nourishment—is most suitable for her when nursing. If, however, this is the mother's first attempt at nursing, or if her supply of milk is not sufficiently plentiful, she should partake freely of fluid nutriment, especially soups, milk, and farinaceous food; she should avoid coffee, but take *a little porter* daily.

The most common ailments concerning which

I am consulted by nursing mothers, and which affect the child prejudicially, are acidity and constipation. The former is readily overcome if care be used by the mother to take easily digested food alone, not to overload the stomach, but rather to take a little food at short intervals of three or four hours, to avoid drinking stimulants, but to drink alkaline waters, as soda-water, potass-water, or lime-water, at meals. A much more troublesome and more serious ailment both for mother and child is constipation. This condition can generally be overcome by dieting, and it is much better to do this than to take medicine daily. If medicines are necessary, the most suitable are saline purgatives (as Epsom salts or the seidlitz powder) and the compound rhubarb pill; and these should be taken at oftenest once in the week. After the bowels have been freely moved by the employment of such medicine, it is best to coax them into daily action by dieting, or by the daily use of cold water as an enema. To eat raw fruit at breakfast, or the cooked fruits (as figs and prunes) which are known to have a slightly aperient action; to drink cold water, or one of the laxative mineral waters (as Friedrichshall, Pullna,

or Seltzer water), before going to bed and on awakening in the morning; to adopt the habit of soliciting nature at a fixed hour daily; and to make it a duty to take a walk daily—these means I find to be generally sufficient for overcoming habitual constipation. I would strongly urge mothers not to ruin their constitutions by taking purgatives, but rather to persevere in using the means I have just described till they have received a fair trial, and especially to employ daily the enema of cold water till the bowels get into proper order.

Although, as already stated, the period of nursing is generally a time when the mother enjoys the most robust health, it must be remembered that the constitution may be materially or even fatally injured by nursing. This may arise either from a mother continuing it too long, or from her strength being naturally unequal to this drain on her system. The former condition is commonly met with among the poorer classes, and frequently injures the child seriously as well as the mother. The latter occurs amongst delicate women, or those who have borne children in rapid succession. When nursing is

proving injurious to a mother, the earliest symptoms experienced are a dragging sensation in the back when the child is in the act of sucking, a feeling of sinking at the pit of the stomach, loss of appetite, general debility, and constipation. Then follow giddiness, ringing in the ears, and depression of spirits. If the mother's health is not now attended to, other symptoms of exhaustion are felt, and the mother becomes weak and quite helpless. When the first of these signs are noticed the medical attendant should be consulted, and the child weaned or given to a wet-nurse. We consider it to be of the utmost importance, however, that every mother should attempt to nurse her child, except she be forbidden this by her medical adviser. Even one or two months' nursing will often enable a child, inclined naturally to be delicate, to digest artificial food; and, except the mother's milk is decidedly bad, such a short period of nursing as two months will not hurt the infant.

This leads us now to make a few remarks on the selection of a wet-nurse. It will be necessary, I think, simply to enumerate the points to be attended to in choosing a wet-nurse; but she should

not be engaged without the sanction of a well-qualified medical man, who will inquire and examine carefully into the state of her health. The wet-nurse should have a robust constitution, an amiable disposition, a cheerful temperament, and a fondness for children, and she should be free from all hereditary taint.

Her breasts should be well-formed and full, and her nipples properly developed; her milk should be thin, of a bluish-white colour, sweet to the taste, and when dropped into water should produce a diffused, cloudy appearance, and 'not sink at once to the bottom in thick drops.' The wet-nurse should be as nearly as possible in sound health, without any blemish of the skin, or redness about the eyelids, or cracks on the lips. It sometimes happens that the monthly period becomes renewed in the wet-nurse, without her informing anyone thereof; and this should be guarded against, seeing it will affect her milk, and may act injuriously on the child. The ages of the wet-nurse and of the mother should coincide as nearly as possible; so also should the ages of the two children be nearly equal. Attention must further be paid to the

health and appearance of the child of the wet-nurse, as hereby one can judge of the nourishing properties of the nurse's milk. 'When a nurse is installed,' remarks Dr. Combe, 'it is advisable that the mother should for a time watchfully superintend her proceedings, and assure herself, by frequent and unexpected visits to the nursery, that everything is attended to with due regularity and in a right spirit. If it be found that the nurse is, of her own accord, regular in suckling the child, scrupulously attentive to cleanliness, gentle, patient, kind, and never put out of humour by fretfulness or by being roused in the night, and that she is habitually contented, cheerful, and active, the mother may then lay aside anxiety, and be thankful for her good fortune. But no excellence in the nurse can absolve the mother from the duty of watching over the health of her child in all essential points.' *

In our discussion of the proper mode of feeding infants we have reached that stage when, either from their teeth being developed they prove themselves ready to digest stronger food than their mother's milk, or when, because of other

* Combe, 'On the Management of Infancy,' p. 116.

circumstances already specified, they require to be weaned and fed artificially. Weaning is very generally regarded by mothers as a hardship inflicted on the child. If the infant could express its feelings, it would, on the contrary, testify satisfaction with the change in diet; but weaning, like other changes affecting children, should be brought about very gradually. We have already indicated with sufficient minuteness the best method of accomplishing this end, and shall proceed now to treat of 'artificial feeding.'

It has been stated before that during the earlier months of infant life, before any teeth have pierced the gums, the diet should consist of milk-and-water, in the proportion at first of one to two, and gradually increasing up to two parts of milk to one of water; but we have also remarked, that this food frequently disagrees with children, owing to slight derangements of the system. In such case it should be discontinued for a few days, and barley-water or rice-water substituted. Children who have been thus 'artificially fed' till they have cut two or three teeth enjoy the best health, and are the most likely to withstand sickness when it attacks them; and this I consider the most

important proof that a child has been properly nurtured. One occasionally sees children brought up on a farinaceous diet look healthy and plump and also pass through their teething pretty easily; but even such, *as a rule*, succumb when attacked by sickness, and they do not generally recover from infantile ailments so quickly or so thoroughly as infants who have been fed on milk-and-water only. We may further remark that, during the first nine months of infantile life, artificial feeding, when required, should be carried on with the aid of a feeding-bottle, and *not with a spoon*. This plan allows of the food being introduced slowly into the stomach; it excites the secretion of saliva, which assists in digesting the food; and it allows a child to choose the intervals indicated by instinct as requisite for taking food.

A very hurtful but common practice is that of a nurse, when she goes to bed, placing a bottle with food in the cot beside the child, and allowing it to remain there unchanged till the morning. When the infant cries the nurse turns round in bed and places the teat in its mouth; so that towards morning the infant sucks up acidified, irritating milk.

It is well here to insist on an important detail, and one often regarded slightly, or overlooked altogether by mothers, viz. that scrupulous attention be paid to the cleanliness and sweetness of the bottle and of the sucking-tube. For this purpose there should be always two bottles (with tubes attached) used, and each in turn should be kept immersed in pure, cold water *till required*.

When the child is able to digest stronger food than milk, I recommend sago as the most suitable to be given first. Observation and experience have led me to choose this from among the various farinaceous diets, because I find that, as a rule, the various preparations of bread, oatmeal, barley, arrowroot, and other ordinary farinas are not so easily digested as sago. This I believe to be owing to their starchy particles being larger and covered with thicker envelopes than are those of sago. Hence arrowroot, bread, potato, and oatmeal (which are the farinas principally used in Great Britain), tend to cause diarrhoea and the passage of undigested food. After an infant has been fed for a week or two on sago and milk it will be able to digest the other varieties of fari-

naceous food; and during the day might have a meal of well-made soup. As regards animal soups, the best to be given at first is chicken-broth, then mutton-broth or beef-tea; but this last often acts as a purgative, and should be mixed with either of the other two; or may be given with a little sago or isinglass boiled in it. Besides paying attention to the selection of the food which is most easily digested, the mother should take care to feed the child at *stated intervals*, and to lay it in its cot after being fed, remembering that *rest is essential to digestion*. There are many combinations of the farinas prepared by individuals, and named after them, which are very useful articles. Recourse may be had to these when the digestive powers of children are not sufficient to assimilate the simple farinas. In such instances (though they are *extremely* rare, if the mode of feeding I have above described has been carefully followed) the mother will require to make trial of one farinaceous preparation after another, and then select and persevere in the use of the one which she finds is best digested. In England we have some forms of 'food for infants'

which contain a considerable amount of phosphates. These I frequently recommend, and with advantage, during teething.

After the child can digest animal soups, it would be well to add a soft-boiled egg to its dinner. The next step of advance in dieting consists in giving puddings, which form good combinations of animal and vegetable food. Nothing is more common than for parents to give their children solid animal food before they have completed teething; in fact, very frequently when they are not one year old. This is a great and mischievous error. It has been wisely remarked by Sir James Clark, that 'to feed an infant with animal food before it has teeth proper for masticating it, shows a total disregard to the plain indications of nature in withholding such teeth till the system requires their assistance to masticate solid food. And the method of grating and pounding the meat, as a substitute for chewing, may be well suited to the toothless octogenarian, whose stomach is capable of digesting it; but the stomach of a young child is not adapted to the digestion of such food, and will be disordered by it.' The common practice, moreover, of giving

children 'a little of what is going ;' that is, of feeding them on the food partaken of by their parents, though encouraging a social habit, is highly prejudicial to infantile digestion. It must be remembered that during all this period, from the appearance of the first teeth to the conclusion of primary dentition, about the end of the second year, the important process of teething is going on. Seeing, then, that at intervals more or less disorder of the system is thereby occasioned, any error of diet ought to be most carefully avoided. It is at this age, too, that eruptive fevers most generally attack children, worms begin to form, rickets and cutaneous affections manifest themselves, and strumous diseases are originated or developed. A judicious attention to diet will do much to prevent these complaints, and mitigate their violence when they do occur. If a child's food should at any time appear to disagree with it, it is better at once to change the diet than to give medicine. Much benefit may be derived by altering the form, and sometimes by simply diminishing the quantity, of the food. Diarrhœa or looseness of the bowels may often be corrected by simply adding isinglass to the

milk or soup; and constipation may be obviated by giving arrowroot, oatmeal, barley-water, or beef-tea.

Besides these symptoms the most common signs of deranged digestion are flatulence, griping, and discoloration of the evacuations. The first of these is caused either by an excessive amount of food being given, or by the addition of too much sugar. This condition may be easily remedied by diminishing the quantity of both. When a child eats too much, that portion of the food which cannot be digested as it passes along the bowels irritates them, and decomposes more or less into gas. It is a grievous mistake for a mother to resort to medicine upon every slight derangement of the digestive system. Purgative medicines especially ought at all times to be employed with caution in the case of an infant; for of so delicate and fragile a structure are its digestive organs, that disease is not unfrequently caused by that which was intended as a remedy. But, even before diarrhoea occurs, disordered digestion may show itself by a change in the colour of the motions. Instead of having an orange or brown colour, the child's

evacuations may be light-coloured, like clay, or green-coloured, like spinach. The former is due to a deficiency of bile; the latter to a disordered or excessive action of the liver. In the former instance there is little smell from the motion, and often undigested food is passed. When the evacuations are green, they are also very fetid, and have a very sour smell. A change in diet, as also a smaller quantity of food, and drinking an abundance of cold water, will generally rectify this derangement of the bowels.

We have urged repeatedly the importance of a mother's nursing or feeding her infant at certain intervals, and on no account to alter the hours of diet, except when required to do so by the child's increasing age. We desire to impress upon mothers the importance of adhering to this rule till the period of childhood is passed. The hours of diet should be regulated according to the age of the child; and on no account should food be given in the intervals between meals. A child will best develop a healthy body and a sound mind if fed on plain, substantial, well-cooked food, given at stated times, and slowly eaten and well masticated before being

swallowed. Pastry and sweets should be given very sparingly. They are difficult of digestion and apt to become acid, while they afford no nourishment, but serve simply to please the palate. Wines and alcoholic beverages are not necessary for nourishment, and therefore should *never* be given to children except under medical supervision. They are most useful sometimes as medicines, but they should not form a part of a child's ordinary dietary. So, also, tea and coffee should not be given to children till primary dentition is completed; and even then, and for some years later, they should scarcely know the taste of these beverages. Before bringing to a close our remarks on the feeding of children, it may be well to describe the modes of preparing a few of the articles of diet before recommended.

Sago.—Take one ounce of pearl sago; macerate it for two hours in half a pint of cold water; allow it to simmer slowly for a quarter of an hour, stirring it well; strain through a sieve, add new milk and a few grains of salt, sweeten slightly with loaf-sugar, and flavour with lemon or nutmeg.

Arrowroot.—Take a dessert-spoonful of arrow-

root powder ; carefully mix it with a little cold water in a basin till it becomes like a soft paste ; then pour upon it half a pint of boiling water, stirring diligently until it is thoroughly mixed ; boil this for five minutes, add fresh milk and a few grains of salt, and sweeten with a little loaf-sugar.

Barley Water.—Take two ounces of Robinson's patent barley, and mix them with two wineglass-fuls of cold water ; allow this to stand for half an hour ; then boil it for three hours in two quarts of water ; strain carefully, sweeten it slightly, and season it with cinnamon or lemon-juice.

Rice Water.—Place a quarter of a pound of well-washed rice in a quart of cold water, and boil this for an hour. Pass it through a fine strainer, and add a little loaf-sugar.

Beef Tea.—Take a pound of good juicy beef, without fat ; cut it into small pieces ; put these into a clean stew-pan, with one quart of cold water ; add a little salt, and boil it slowly for three or four hours ; let it grow cold, and skim off all the fat.

Bouillie for Infants, recommended by Dr. Combe.—‘ The *bouillie* commonly used in France as the first food of infants is made by gently

roasting the best wheat-flour in an oven, then boiling it for a considerable time, either in water, or in milk-and-water, and adding sugar to it. When carefully made,' adds Dr. Combe, 'not too thick, and free from knots, it is an excellent food, especially when the use of milk excites a tendency to diarrhoea or colicky pains.'*

Chicken Soup.—Take a nice plump chicken, divide it in two; place it in two quarts of cold water, with a little salt, and boil it very slowly for two hours. Add a little rice half an hour before it is removed from the fire.

Veal Soup,—may be made in the same way as chicken soup, allowing one pound of veal to one quart of water.

Mutton Soup.—Take one and a half pounds of mutton; cut off the fat; place it in a quart of water; add a little salt and a table-spoonful of pearl-barley, and boil slowly for two hours.

Bread Jelly.—'A quantity of the soft part of a loaf is broken up, and boiling water being poured upon it, it is covered and allowed to steep for some time; the water is then strained off completely and fresh water added, and the whole placed on the

* Combe, 'On the Management of Infancy,' p. 125.

fire and allowed to boil slowly for some time, until it becomes smooth ; the water is then pressed out, and the bread on cooling forms a thick jelly, a portion of which is to be mixed with milk or water and sugar, for use as it is wanted.' *

Resumé.—In order to feed a child so that it may be strong and have a good constitution, the following points must be attended to:—Till the first teeth appear the infant should be nursed by its mother or by a wet-nurse, or fed with a bottle containing equal parts of milk-and-water, gradually increasing the proportion of milk. It is impossible to lay down a rule applicable in every instance. Some medical men, skilled in the management of children, consider that the juice of raw beef, extracted by muriatic acid, is a more natural aliment for a child than milk ; but in my experience the plan above detailed, if strictly and intelligently followed out, will, in the majority of instances, be successful. At the *ninth* month it should be weaned, and farinaceous food added to its milk diet. After this animal diet, in the form of soups, should be given, and be followed by eggs or meat. A fixed plan should be always

* Dr. F. Churchill, 'On the Diseases of Children,' p. 31.

pursued when feeding a child. A sufficient interval should be allowed between meals for the digestion of the food, and the quantity given at once should be gradually increased as the child grows. The earliest indications of any special form of food not agreeing with the child should be noticed, and a change made either in the kind of food or in its preparation. Special care should be taken to prepare the food in clean dishes, and to cook it thoroughly. Tea, coffee, or any form of alcoholic stimulant should not be given to children, except when prescribed as medicine. The healthiest children, and the strongest adults, are those fed on simple, easily-digested, and well-prepared vegetable and animal food.

CHAPTER III.

OTHER ACCESSORIES TO THE HEALTHFUL DEVELOPMENT
OF A CHILD.

INASMUCH as the proper feeding of a child constitutes *the most* important means of affording him health and strength, we have devoted the largest portion of our space to the discussion of this subject; but there are some other hygienic measures conducive to the healthy development of a child which claim now to be briefly discussed.

Clothing.—A child's clothes should be warm, and should fit him comfortably, without restraining his power over his muscles. An infant is extremely susceptible of cold, and has little power of generating heat; hence it is most essential to its health that the *whole* of its body be wrapped in warm clothing. The neck, arms, hands, legs, and feet should, equally with the body, be enclosed in flannel during cold weather. The prevalent idea that a child should

be hardened by exposure to cold is most injurious, and may even prove fatally prejudicial. A child's clothing should be regulated by the season of the year, and be carefully modified to suit the sudden changes that occur in this climate. Whilst children are growing, this principle of allowing their muscles and bones perfect freedom of development should be strictly followed, and accordingly the use of such restraining portions of dress as stays or braces should be avoided till they have ceased to grow.

Another mischievous error, often committed, is the early rejection of the flannel binder which was put round the new-born infant's abdomen. This bandage should be placed *next* the skin; it should not at all interfere with the movements of the chest, and should be worn, especially in cold and damp weather, until after the second teething is past.

The clothing of children should be light as well as warm. The manifold layers which usually form their dress are very objectionable on account of their weight, and because they annoy the child greatly by requiring that it be twisted over and over, while one portion of dress

after another is adjusted. The infant itself can give no explanation of the inconvenience it suffers; but watchful mothers will soon observe the delight which a healthy child exhibits when (in a bath for example) it enjoys the freedom of its natural state, while, on the other hand, it cries piteously when it is being dressed for going out. Every mother should further take care that an infant's clothing be stitched, or fastened with safety pins, and that it does not suffer from the pricking of a pin, or from the pressure of a button on the skin. A babe's clothing should be changed daily, and that of a child very frequently. All wet and soiled linen should be *at once* removed. By inattention to this, children often suffer from skin diseases of different degrees of severity; or become attacked by cold and by various forms of inflammation, whose origin can evidently be traced to sitting or playing in wet clothes. A troublesome form of redness of the skin of the buttocks I have found to be owing to the excessive use of soda in washing an infant's napkins.

Stockings and shoes are required both to protect the feet from cold, and also from injury, when the child crawls or walks about. It is surprising

how these two essentials are constantly overlooked by mothers in providing their children with articles of clothing. An infant's socks should be made of wool, and should be long enough to reach to the knees; and no other form of sock should be worn till the child has got over its first teething. So also the boots worn by an infant, when learning to crawl or walk, should reach above the middle of the leg, and thus form a support both to the ankle and the leg.

It should be especially borne in mind that it is very hazardous to make a sudden change in the clothing of children. If, either on account of its age, or because of a change in the season, it is considered requisite to alter a child's clothing, this should be done gradually and cautiously.

Bathing and Cleanliness.—A healthy action of the skin is essential to a child's well-being. As, moreover, the perspiration contains solid matter as well as fluid, and the former adheres to the surface of the skin, while the latter evaporates, it is very important that such matter be removed *daily*, otherwise the pores become obstructed and the function of the skin interfered with, or obstinate and troublesome eruptions appear on its

surface. It should further be borne in mind that if the impurities thrown out by perspiration are not frequently removed by washing, the waste matter which should thus be removed is either 'partly and hurtfully retained in the system, or escapes through some other channel, such as the bowels, kidneys, or lungs, at the risk of deranging these organs by overtasking their powers.'*

With regard to the use of soap, it should be remembered that water alone can remove most of the impurities arising from perspiration; but that soap, by combining with the oily secretion on the skin, renders this more easy of removal. On the other hand, water, when it is naturally very hard, may on this account prove injurious to the delicate skin of the infant, and this can be remedied by the addition of soap. But as ordinary soap may also hurt its skin, I recommend that an infant be washed with some form of emollient soap, such as glycerine or the weak carbolic acid soap; or a little ordinary soft brown soap may be thoroughly mixed with the water, and this be used for bathing the child. It is not necessary that soap be used

* Combe, 'On the Management of Infancy,' p. 94.

daily in washing an infant; on the contrary, this may prove injurious by the removal of the protecting oily secretion of the skin, rendering it dry, harsh, and liable to crack. The safest and most convenient way of washing a babe in warm water, is by immersing its whole body at once, up to the chin, in a bath, sprinkling at the same time a little water over its head. While in the bath, the whole surface of the body, and especially the folds of the skin and joints, should be carefully rubbed with a soft sponge. The temperature of the water should at first be nearly the same as that of the body—namely, from 96° to 98° Fahr., and this should be regulated not by the hand, but with precision by a thermometer. An infant should be washed all over daily, but a child, from one to seven years old, on every second or third day. As the child grows older (after the first six months) the temperature of the bath may be gradually lowered, at least in warm weather. During the summer season, after children are two years old, if at the seaside, it is well to encourage them to bathe in the sea, when the weather is warm. The best time for bathing an infant is in the early part of the forenoon, after

the rooms have become moderately warmed ; but children above a year old will enjoy their bath most when it is given before going to bed. It must *always* be borne in mind that a child should never get a bath *soon* after taking food. The habit of cleanliness inculcated in infancy and childhood is carried through life ; and besides being conducive to health, it is felt, in later years, to have an important moral influence. ‘To restless and irritable children, also, the evening bath is often of the greatest advantage, from the quiet and refreshing sleep which it rarely fails to induce.’ * It is a mischievous error to suppose that a child is to be rendered more capable of withstanding the changes of the seasons by being bathed in extremely cold water ; and, moreover, a common source of colds and other ailments in children is the exposure of the surface of their bodies to cold air after they have had their bath.

After having been carefully and quickly bathed, a child should be thoroughly dried with a soft warm towel. The surface of the skin should be made not only *perfectly* dry, but by gentle friction a general glow of warmth should be excited. Where the folds of the skin overlap one

* Combe, ‘On the Management of Infancy,’ p. 96.

another, as at the neck, armpits, &c., they should be thoroughly dried and then sprinkled with some soft powder, so as to prevent cracks and excoriations.

Air and Exercise.—The proper ventilation of the rooms occupied by children has not received that share of attention which its serious influence on health demands. The air of such rooms should be fresh, warm, and without currents or draughts. The exchange of bad or used-up air for fresh air should take place imperceptibly, and should be constantly going on by night and by day. The evils resulting from imperfect ventilation are but too plainly observed in the looks and development of the children of our poorer classes. ‘Where systematic ventilation does not exist, it is almost impossible to keep an apartment shut up for any length of time without a condition of atmosphere being produced that must be injurious.’ The deterioration of the air in such rooms is not perceived by its inmates, but is readily noticed by anyone entering them after being in the open air. Its deleterious influence is gradual and cumulative; it acts day after day and night after night—slowly, imperceptibly and surely. When chil-

Children's Rooms should be light and airy. 57

dren awake in the morning not refreshed by their night's rest, and indisposed to get out of bed, it is often supposed that their health is affected, whereas this condition results merely from their breathing during the night the air of a close bedroom. It is very essential, therefore, that the children's day-room should be separate from their sleeping apartment. The windows of both rooms should be alternately opened wide while they are not being used. No cooking, or washing and drying of linen, should be done in those rooms. The temperature of the rooms occupied by children should be carefully regulated, and should *not exceed* 65° Fahr. Overheated rooms render children *very* susceptible of disease; but in cold weather the temperature of the bedroom should not be allowed to fall below 60° Fahr. The rooms occupied by children are generally situated in the upper part of the house, so that the other inmates may not be disturbed; and hence they receive a considerable portion of the heated air of the house. Their proper ventilation, therefore, requires special attention; and it should be a rule that as little gas as possible be burnt in the children's bedroom. Lastly, the

interior of children's rooms should be made to look as light and cheerful as possible.

Exercise, like air, is of essential importance for promoting the health of children. A babe cannot itself take sufficient exercise to balance the change of temperature caused by taking it out of doors; but with care it may be made to enjoy the invigorating and vivifying influence of the open air, as well as an older child. 'At first,' says Dr. Combe,* 'the exercise of the infant ought to consist simply in being carried about the nursery or in the open air, in a horizontal or slightly reclining position on the nurse's arm, and in gentle friction with the hand, over the whole surface of the body and limbs, after the bath, an operation which is no less agreeable to the infant than beneficial in promoting a free and equable circulation.'

The new-born infant should not be taken out of doors during the first week or ten days after birth, and during winter or in cold weather not till after the lapse of four or six weeks, and then only in fine mild weather, and for a short time. Besides care being taken that a child

* Combe, 'On the Management of Infancy,' p. 98.

does not suffer from cold, it is necessary to guard against the exposure of its weak eyes to bright light; it is well, therefore, to cover an infant's face with a veil when it is carried out of doors, till it becomes accustomed to the open air.

Whenever the weather permits it, children should be taken into the open air; but they should *on no account* be exposed to very cold or to damp air. In fine summer weather a child can scarcely be too much in the open air, if the morning and evening dews and chill be avoided.

In carrying an infant very great care should be taken, especially during the first year of its life. The nurse should carry it only in the *sitting posture*, and she should be enjoined not to stand or loiter about with it; nor to keep it so long out of doors as to cause it to become faint from want of food. The framework of the infant is not sufficiently strong to support its own weight; hence it should, during the first six months, be carried on the arm in a recumbent posture; but during these months it may, at intervals by day, be allowed to lie on a mattress and kick its limbs about. This is the best exercise an infant can have, and strengthens

the muscles. In lifting an infant, the hands should be placed on either side of the chest below the armpits, and it should be gently raised thereby ; but the thoughtless mode of lifting children in raising them by their hands, is very apt to displace those limbs. ‘The common custom of dandling, swinging, and jolting very young infants is highly improper.’

When a certain degree of strength has been acquired, and children begin to assume the upright position, and endeavour to walk, they become very liable to those distortions of the body which result from too much weight being laid on the soft and pliable bones of their framework. Hence the crooked legs, the contracted chests, and curved arms frequently seen in children brought to our hospitals. It is also most important for mothers to bear in mind that such distortions result not only from *too great a* weight, but also from the *too long* bearing of the weight. Hence it is best not to be in any hurry to teach the child to walk ; instinct is the best guide in this matter. Let the nurse assist the child to stand when it first makes the attempt to rise, but it should not be allowed to remain longer

erect than its strength warrants. The distortions liable to be thus produced are readily remedied if noticed early, and proper corrective means used *whenever* they are observed. Nature directs children first to crawl, next to stand, and then to attempt to walk aided by some support, as a chair; and this plan should be encouraged by parents. I find also that it greatly assists a child, when first endeavouring to walk, that its boots be long enough to reach half way up its legs, so as to support *both the ankles and legs*. It is well for a child not to wear too long clothes when attempting to crawl or stand, and for this purpose they should be curtailed after it is six months old. ‘A child trained to walk independently may, no doubt, get a few falls,’ remarks Dr. Combe, ‘but on the supposition that all hard bodies have been removed out of its way, and that it is practising on a carpet or a lawn, under the superintendence of a watchful nurse, it runs far less risk of sustaining injury from falls, than it is certain to do if leading-strings and other artificial supports are substituted, which tempt it into fallacious estimates of its strength, and expose it to worse dangers from the careless-

ness of its attendant.’* A modern convenience, injurious to the child though approved of by nurses, is the perambulator. Children should never be allowed to be taken out of doors in perambulators. There is no more fertile source of illness and injury to children than can be traced to their getting open-air exercise in a perambulator. Children are much more benefited by being taken only a short distance out of doors, by being allowed to walk, and carried at intervals when tired, than they are by being driven a long distance in a perambulator, while their limbs are becoming cold and they run the risk of being upset. A very important lesson which a child learns by walking is the self-regulation of its limbs, and this faculty cannot be cultivated when a perambulator is used. After he is strong enough to walk and run about, he should be allowed, whenever the weather is dry, to be *much* in the open air. One point requires here to be insisted on, that the utmost care be taken to remove all damp clothes from a child directly he returns home from his walk. If he happens to get wet when out, his outer garments should

* Combe, ‘On the Management of Infancy,’ p. 104.

be changed, and especially his damp stockings and shoes removed. When children have reached their seventh year they should be encouraged to take exercise on horseback, and in a few years more they should be taught to row. Rowing is the *best* form of exercise for developing all the muscles of the body, and hence it is well for children of both sexes to be trained to it.

Sleep.—A healthy infant spends the larger portion of the first weeks of its existence in calm repose, and awakens only to be fed. As we remarked in a former chapter, sleep is provided to the infant in such large amount in order that the processes of nutrition and growth may proceed without interruption. A healthy child sleeps calmly, its breathing is scarcely perceptible, and its face is placid. It awakens evidently refreshed and unruffled. If the plan we have formerly insisted on be pursued, and the child be taught to take food at certain intervals, it will soon acquire the habit of sleeping between meals, and will, of its own accord, waken at the proper times for receiving food. Unless regularity of sleeping be established, neither mother nor child can enjoy that undisturbed repose which is so

beneficial to both. It is most important that children be accustomed to regular hours of eating, sleeping, taking exercise, and performing all other natural operations; but as they get older they should be taught to feel that night is the natural season for repose. It is further essential to health that the child be kept warm, and this is sometimes difficult to manage without burdening it with bedclothes. Restlessness at night and crying often arise from cold feet, and it is well for mothers to bear this in mind. Moreover, while a child is allowed plenty of air by not having curtains to its bed, and by not having its face covered, it is important to carefully exclude light and noise while it is asleep. At first an infant is ready to sleep immediately after being nursed, but as it grows and takes more food at once, it is apt to show signs of uneasiness from distension of the stomach, and will require to be soothed or rocked to sleep. A healthy child, brought up by the regular plan we have repeatedly insisted on, is ready to fall asleep at the proper time; and any signs of restlessness or excitement at such times indicate certainly that something is

wrong, that the child is not quite well. 'If no adequate external cause can be discovered, we may infer with equal certainty that its health has in some way suffered, and that it is sleepless because it is ill.'* No sedative medicines or like means should be used to induce sleep under these circumstances.

Mental and Moral Training.—We desire to make only a few remarks on these topics, and prefer to ask our readers to peruse carefully Dr. Combe's excellent observations upon them. We should, however, be omitting a very essential and important portion of our subject if we passed over in silence the mental education and moral training of children. It is most interesting to observe how the various mental faculties are gradually unfolded in infancy and childhood. After spending the first few weeks of its existence in sleeping and eating, the infant commences to look about it, and shows signs of perception, then of observation. The earliest to develop itself of the higher mental processes characteristic of the human mind is observation. It is most impor-

* Combe, 'On the Management of Infancy,' p. 108.

tant, therefore, that every opportunity be embraced by parents to cultivate this faculty.

The next trait exhibited by children is that of inquisitiveness—the wishing to know the why and wherefore of everything. They then begin to form distinctions, to conceive likes and dislikes, and to perceive causes and effects. A common source of injury which we meet with is the misinforming children when they ask questions we do not wish to answer. Parents, when they do not wish a child to know a thing, often give an incorrect answer, hoping it will be forgotten; but impressions made in childhood and information received in youth are often ever after retained. If parents do not wish a child to know a certain thing, they should tell the child so, but on no account make a false statement. Example is more important than precept to children, and at *all* times this should be borne in mind. In childhood the imitative powers are rapidly formed, because the faculty of observation holds sway over that of reasoning. Parents, then, cannot be too careful in their behaviour before children. An unbecoming act, an improper word, an unintentional look, are quickly

noticed by children, and will certainly be reproduced by them either in their parents' presence or during their play with one another.

Mens sana in corpore sano—a healthy body develops a healthy mind—holds most true in the case of children. When we hear of a child being cross, ill-tempered, passionate, or gloomy, we at once try to find the cause in the child's state of health. The healthy child enjoys an equable temperament, an active mind, an affectionate and cheerful disposition. It does harm to punish a child because it exhibits passion or commits an error until we feel assured that the mind has not been affected by some physical disorder; and it is equally wrong to withhold rebuke or punishment when the fault is evidently of mental origin.

A further general principle by which parents should be guided in the mental and moral culture of their children is this:—that the mental and moral faculties require to be trained with the same care and on the same plan which we have already indicated as best for the development of a child's corporeal functions. Each organ of the body responds

instinctively to its peculiar natural stimulus, and each function of the brain, as well as each of the senses, replies instinctively, though, in the case of children, at first unconsciously, to its special stimulus. The eye appreciates light and the various characters of external objects at first intuitively, and by cultivation more and more perfectly. 'The internal emotions, like the external senses, being distinct from each other, and independent in their action, let the appropriate object of any one of them, the organ of which is already sufficiently developed, be presented to it, and it will start into activity, just as the eye does when the rays of light impinge on the retina. To call out and give healthy development to the kindly and affectionate feelings of an infant, we must habitually treat it, and every person in its presence, with kindness and affection—the display of the natural stimulants to the organs of such feelings.*' We have no choice in this matter; hearing is not stimulated by light, nor the eye by sound. In order to rouse any of the intellectual or emotional faculties into healthful action,

* Combe, *Op. cit.*, pp. 185, 186.

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and to cultivate them properly, we must bring them under the immediate influence of the objects to which they are specially related.

We have repeatedly insisted, in the preceding pages, on the very great importance of educating the habits of a child (as eating and sleeping) from infancy on a *regular plan*; and this principle holds equally true with regard to its mental and moral culture. Those who suppose the mental education and moral training of a child can, without injury, be delayed till it is five or six years old, forget that during this interval nature will not be idle, and that suitably stimulant but injurious influences will act on some or most of the mental and moral faculties of the child, leading to the formation of bad habits. ‘From the moment,’ remarks Dr. Combe, ‘that the child can express a want, and derive enjoyment from its gratification; from the moment that its bodily comfort is visibly increased or impaired by judicious or injudicious treatment; from that moment, although the intellect may still slumber in comparative inactivity, and be unable to generate one well-defined idea, intellectual and moral education has commenced,

and, whether recognised as such or not, will continue to impress its effects on the constitution through life.* From the *dawn of life* the evoking and training of the moral and mental faculties should be commenced and steadily conducted. It is a most injurious fallacy to wait till reason exhibits itself, or until it is so far developed as to be capable of controlling the passions and aiding the intellect.

Lastly, while we would urge mothers to allow children ample scope for the exercise of their moral and mental powers, as we have before advocated a like freedom in the use of their corporeal powers, we would here also insist on the importance of not overtaxing the mental or moral faculties. An excess of light, instead of strengthening a child's sight, will more probably cause blindness; and excessive fondling will spoil a child, while frequent curbing will produce tameness or crush a noble spirit.

* Combe, *Op. cit.*, p. 195.

CHAPTER IV.

THE DOMESTIC MANAGEMENT OF CHILDREN WHEN
SICK.

IN the preceding chapters have been specified the chief essentials for improving and maintaining the health of children. We shall now indicate shortly the most common ailments which attack children, the symptoms which ordinarily precede them, and the remedies to be used by mothers, in the first instance, before the doctor arrives. It is especially important in the case of children that the means to be used for overcoming or averting sickness be employed *promptly, assiduously, and correctly*. Hence we shall also give some simple but important directions regarding the management of sick children.

I. **Disorders of Digestion.**—These are the most

frequent and earliest troubles, and few or none escape them. They generally betray their presence by vomiting, diarrhœa, constipation, or by an alteration in the colour and character of the stools. When the breast milk or the bottle does not suit a child, the fluid is returned at a longer or shorter interval after it has been taken. It is vomited generally in a more or less curdled state. This is owing to acidity of the milk, or to its having caused acidity in the child; and it is best remedied, in the case of the nursing mother, by her taking occasionally some gentle saline purgative (as a seidlitz powder), and by her using lime-water with her meals, or drinking soda, potass, or other alkaline water. When the milk of the bottle is rejected by the child in 'curds,' lime-water or soda-water should be added to the food. If this alteration be not sufficient to overcome the disorder, the infant should be fed for two or three days on barley or rice-water only, and after the vomiting has ceased the use of milk can be resumed. At the same time the child should be fed less frequently, and should receive a smaller quantity at once.

If this first indication be overlooked, the same cause (acid indigestion) will produce the next symptom, diarrhoea. To correct this, a change of diet should be adopted, and lime-water added to the food. Instead of milk thin sago might be given; or if the milk is not vomited, isinglass should be boiled in it, and the whole largely diluted with water. Some children seem to suffer from constipation by nature; but, whenever observed, this should be corrected at once. If the mother suffers in like manner, the best mode of rectifying the trouble in the child is by the mother's paying attention to overcome it in herself. We have already stated the best means for a mother's overcoming her constipation. It is a *most injurious* practice to give children purgatives often, and this we cannot too strongly insist upon. If, however, an infant's bowels cannot be regulated through the mother, or by changing its diet (giving it barley-water instead of milk), the best purgatives to be administered are magnesia or syrup of senna. The former is now prepared in a very palatable form as fluid magnesia, and the latter is readily taken by children. Castor oil is *much too severe* a purgative for a child.

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Olive oil or sulphur mixed in syrup are often found useful for regulating a child's bowels. An infant should have at least two evacuations from the bowels daily, and a child one motion daily. Purgatives are best given *in the morning* on an empty stomach. They act more surely and more rapidly when given at this time. If these means do not suffice to overcome habitual constipation, it will not be right to persevere in giving purgatives, but the bowels should be acted on by administering *daily* an enema of cold water. This means does not exhaust a child's strength so much as does a severe purgative, and it rarely fails to succeed.

Before proceeding further, we would lay down a rule important to mothers, and which should on no account be violated, viz.: the mother's duty is to observe and take note of symptoms, but the doctor should be asked to interpret them. Very much harm is done by mothers thinking so-and-so did so-and-so, when in fact there was not sufficient time for the cause to produce the supposed effect; or where a certain effect can be traced by a more experienced person to several different causes.

Sometimes, without any apparent reason, and without exhibiting any of the above symptoms, a child is observed to be gradually wasting, and although he takes his food greedily he does not thrive. This rarely if ever occurs without having been preceded by some other sign of indigestion, which has been overlooked. When a child is observed not to thrive, but to be losing flesh, care should be taken to discover at once the cause, and the diet should be altered. If, even after so doing, improvement does not take place, the mother's attention should be directed to the possible presence of worms. It is a mischievous error, however, for a mother to conclude from certain symptoms (as picking of the nose, grinding of the teeth, &c.) that a child has worms. These symptoms indicate merely that there is disorder of the bowels, but whether arising from worms or from the bad digestion of food, can be determined only by the child's passing worms, or by the character of his motions and the appearance of his tongue. It is highly improper to give 'worm-powders' or 'worm-cakes' or other remedies for worms till the actual presence of these animals has been ascertained; and the suitable

remedies for worms should be given only under medical supervision.

Another early, and often the earliest, sign of disordered digestion in a child is a change in the colour and character of his motions. The stools become pale and clayey, or are curdled and smell sour, earthy, and very offensive; or they become greenish and lumpy. When this is observed, and this point should be always *very carefully* attended to with children, any one of the aforementioned purgatives should be given, and the diet altered; but if this is not sufficient to correct the disorder, medical advice should be obtained.

Before leaving this class of ailments, we must refer to certain other symptoms which indicate derangement of the bowels, but which resemble also the signs of certain disorders of the brain, viz. starting in sleep, crying without any apparent cause, and fits. When an infant is troubled with acidity, it suffers also greatly from flatulence, producing distension of the bowels and griping, and causing crying. We have formerly mentioned the peculiar cry indicative of want of warmth in the body; the cry produced by griping

is equally characteristic, and every mother should be able to distinguish it. It is relieved only by a removal of the cause, either naturally by the gas escaping into another portion of the bowel, or through its being expelled, or by the use of some warm application to the abdomen. This griping is often caused, and is always intensified by, the child's feet being cold. The best means of relieving it quickly though temporarily is the use of warm fomentations or of a hot linseed-meal poultice. Fomentations are to be applied by wringing several folds of flannel out of boiling water as dry as possible, and by placing a fold of dry flannel over the moist one, to retain the heat as much as possible. Waterproof cloth placed over the fomentation will help to retain the moisture. A fomentation or a poultice should always be applied as hot as a child can bear it. When it is considered advisable to apply turpentine, laudanum, or other medicines in the way of fomentation, these remedies should be sprinkled in small quantity, over the *surface* of the fomentation flannel *next the skin*. Fomentations should be re-applied at intervals of 10 or 15 minutes, in order to procure their full benefit.

In my experience, the usefulness of poultices depends greatly on the manner in which they are prepared. To make a poultice properly, then, the following plan must be strictly adhered to:— The necessary amount of water should be placed in a small pan on the fire to boil, and the linseed-meal (or better linseed-meal and bran) of which the poultice is to consist is to be placed in a bowl within reach. As the water in the pan boils, one spoonful after another of the meal is to be added to it and stirred among the boiling water until a quantity sufficient for the poultice has been thus prepared; when it should be spread between two folds of linen or put into a flannel bag, and applied gradually to the part desired. Care should be taken that the poultice is not too moist, which would render it very uncomfortable; and in order to avoid this, only a little water should be placed in the pan at first. In the ordinary mode of making poultices, by pouring boiling water over the cold linseed-meal, much heat is lost during the effort to heat the meal. A poultice made according to the plan I have described will retain its heat perfectly for three or four hours. Nurses should be especially

enjoined to remember that *cold poultices do harm.*

Before leaving this subject of warm applications, useful as adjuncts in the treatment of sick children, I desire to recommend the following mode of making *mustard-plasters*, as by experience I have proved it to be the best. The irritant property of mustard is very penetrating, and this is increased by mixing it with boiling water. The following way of preparing a mustard-plaster or poultice will be found most efficacious, most readily carried out, and most cleanly:—Having mixed the mustard powder with *boiling* water in a bowl to a rather stiff paste, it should be spread on strong brown paper in a thick layer, and over this should be placed a layer of thinner paper (as newspaper or tissue paper), so as to enclose the mustard paste as in a sandwich. The edges of the paper are to be folded over, and the newspaper surface of the mustard plaster placed next the skin.

Starting in sleep and fits indicate an improper action of the brain; but these symptoms may result from indigestion as well as from the more serious disorder, congestion of the brain. As a rule,

the former is the general cause of these symptoms, and when observed, the child should be treated for disordered digestion. That form of convulsion termed by nurses 'internal fits,' is due to indigestion alone. When a child has a fit, the best course to be pursued is to place its body *at once* in a *very hot* bath while cold is applied to its head, and the doctor is being summoned. If it does not show signs of rallying after having been a few minutes in the hot water, give it an enema of hot water, soap, and castor oil. Much precious time is lost, and serious illnesses result from not using these simple means at the commencement of a convulsion.

II. The next most common series of complaints from which children suffer are *eruptive fevers*; and, as all medical men who have devoted attention to children's ailments will admit, the domestic management of these troubles is even more important than their medicinal treatment. Whenever a child is observed to be feverish, it should at once be placed in a hot bath, and except such bath be given with care, it may be productive of much harm. In prescribing, therefore, a hot bath for children I insist on attention to the

following points. The water should be just sufficiently hot (about 95° Fahrenheit) to allow of the mother's hand remaining in it for a minute or two. The child should be immersed in it for a similar length of time. Then he should be lifted out of the bath in a blanket, and with this rolled round him he should be placed in bed. Thus will be induced free perspiration; and after this has lasted for fifteen or twenty minutes, the surface of the child's body should be dried by rubbing it briskly with a warmed towel, and his night clothes should *then* be put on. The greatest care must be taken that the child does not become chilled after such a bath; and to avoid this the room should be well heated by a fire, and the child be kept in the moist blanket not *longer than twenty minutes*. This is also the kind of bath most suitable for a child when it is convulsed.

After the rash of any of the eruptive fevers (as measles, scarlet fever, &c.) has been observed, the doctor should at once be summoned. The lives of many children are hazarded, the healths of very many more irreparably injured, by the prevalent idea that a slight attack of measles or

scarlet fever can be perfectly well 'managed' by the mother. This fallacy is very widespread among the lower and lower-middle classes, and is the source of endless harm to their members.

This leads us to the enunciation of a few aphorisms. Children never deceive in their symptoms. Though the cause of their *malaise* may be difficult of detection, it is sure to exist, and no effort should be spared which can possibly lead to its discovery.

Again, when a child is restless or excitable, it is highly improper to give sedatives, but, on the other hand, the source of the trouble should be sought for diligently.

No medicines, except those we have before mentioned, and especially *no form of opiate or sedative medicine*, should be given a child by its mother or nurse on her own responsibility and without medical advice. 'Not to mention,' remarks Dr. Combe, 'the thousands of cases in which health is injured by the injudicious use of medicines in infancy, it appears, from a return printed by order of the House of Commons of all inquests held in England and Wales in 1837 and 1838, in cases of death from poison, that seventy-

two, or nearly one-seventh of the whole number, resulted from the carelessness of mothers and nurses in administering medicines, with the properties of which they were unacquainted, in doses far beyond those in which they were ever prescribed by medical men. In addition to such cases of absolute poisoning, and to those so prevalent of late years among the manufacturing population, from the habitual drugging of infants with laudanum to keep them quiet or asleep during their mothers' absence at the mill, it is well known to practitioners that much havoc is made among young children by the abuse of calomel and other medicines, which may procure momentary relief, but often cause incurable disease in the end; and I have been astonished to see how recklessly remedies of this kind are had recourse to, on the most trifling occasions, by mothers and nurses, who would be horrified if they knew the potency of the drugs they were giving, and the extent of injury they were inflicting.* The medical officers of our children's hospitals can testify further, from their experience both in those institutions and in their practice

* Combe, *Op. cit.*, p. 118.

among the better classes, that many children's lives are sacrificed annually at the drugging altar. Opiates, moreover, are given not only in the unpleasant form of laudanum, but still more frequently in the palatable form of 'paregoric,' 'Mrs. Winslow's soothing syrup,' 'Steedman's soothing powders,' and the like. Another source of injury to children's health, very frequently met with, arises from mothers drugging (so-called 'doctoring') their children according to books. The numerous books on children's diseases which contain prescriptions and describe the medicines suitable for the various ailments of childhood, are not intended to be abused by mothers carelessly glancing over a page here and there, and giving the medicines mentioned in such page. Those who know little or nothing about drugs should let them alone. A child's health is very precious, and a high value should be set upon it.

In bringing this chapter to a close, we shall only allude further to the most common class of accidents to which children are liable, viz., burns and scalds. In order that a burned or scalded surface may heal rapidly, it should be excluded from the air as quickly as possible. For this

purpose, and to relieve pain, the best application is a mixture of lime-water with olive or linseed oil; after which the part should be wrapped up in cotton wool. If this mixture cannot be readily got, any form of oil, or lard, should be used at once. This treatment should be carried out *immediately after* the injury has been received; and then medical advice sought.

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Third, the world's food resources are being used in a way that is not sustainable. In many countries, the land is being overused, and the soil is being depleted. This is leading to a decline in the world's food resources, and it is putting the world's food supply at risk.

Fourth, the world's food resources are being used in a way that is not equitable. In many countries, the rich are getting richer, and the poor are getting poorer. This is leading to a widening gap between the rich and the poor, and it is contributing to the world's food shortage.

Fifth, the world's food resources are being used in a way that is not healthy. In many countries, the food that is produced is high in fat, sugar, and salt. This is leading to a rise in obesity and other health problems, and it is contributing to the world's food shortage.

There are a number of things that we can do to help solve the world's food shortage. First, we need to stop the world's population from growing so rapidly. Second, we need to use the world's food resources more efficiently. Third, we need to use the world's food resources in a way that is sustainable. Fourth, we need to use the world's food resources in a way that is equitable. Fifth, we need to use the world's food resources in a way that is healthy.



